

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/781,791	KATSUKI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Nitin Patel	2629	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 2/20/2004.
2. ☒ The allowed claim(s) is/are 1-8.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                      |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date <u>2/20/2004</u> | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material                    | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

*Nitin Patel*

### REASON FOR ALLOWANCE

1. Claims 1-8 are allowed.
2. The following is an examiner's statement of reason for allowance:

The prior art fails to teach or suggest A piezoelectric element comprising: a substrate; a piezoelectric layer having a first surface and a second surface opposite to the first surface, the first surface facing the substrate, the piezoelectric layer having a thickness  $h$ ; a first electrode arranged between the substrate and the first surface of the piezoelectric layer; and a second electrode held in contact with the second surface of the piezoelectric layer; wherein one of the first electrode and the second electrode includes a common base and a plurality of parallel branches extending from the base, the branches being spaced from each other by a pitch  $\lambda$ , the other of the first electrode and the second electrode including a portion that faces the branches via the piezoelectric layer, wherein the thickness  $h$  and the pitch  $\lambda$  are determined to satisfy an inequality  $0.005 \leq h/\lambda \leq 0.1$ , wherein the first electrode has a hillock occurrence rate which is no greater than 0.1% as claimed in claim 1.

The prior art fails to teach or suggest a touch screen comprising: a substrate including a detection region and a marginal region surrounding the detection region; a wave generator arranged in the marginal region for generating a surface acoustic wave in the substrate; and a wave receiver arranged in the marginal region for receiving the surface acoustic wave; each of the wave generator and the wave receiver comprising: a piezoelectric layer having a first surface facing the substrate and a second surface opposite to the first surface, the piezoelectric layer having a thickness  $h$ ; a first electrode

arranged between the substrate and the first surface of the piezoelectric layer; and a second electrode held in contact with the second surface of the piezoelectric layer; wherein one of the first electrode and the second electrode includes a common base and a plurality of parallel branches extending from the base, the branches being spaced from each other by a pitch  $\lambda$ , the other of the first electrode and the second electrode including a portion that faces the branches via the piezoelectric layer, wherein the thickness  $h$  and the pitch  $\lambda$  are determined to satisfy an inequality  $0.005 \leq h/\lambda \leq 0.1$ , wherein the first electrode has a hillock occurrence rate which is no greater than 0.1% as claimed in claim 5.

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nitin Patel whose telephone number is 571-272-7677. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin H. Shalwala can be reached on 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nitin Patel  
Examiner  
Art Unit 2629

